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SYMPOSIUM IN OCCUPATIONAL EDUCATION, MANPOWER, AND ECONOMIC CHANGE IN THE UNITED STATES, FINAL REPORT.

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*SYMPOSIA, *RESEARCH PROBLEMS, *URBAN CULTURE, *WORK EXPERIENCE, *VALUES, EMPLOYMENT, GOVERNMENT ROLE, EDUCATIONAL OPPORTUNITIES, EDUCATIONAL ENVIRONMENT, EVALUATION, BLOOMINGTON, INDIANA

DIALOGUE WAS PRESENTED AT A SYMPOSIUM FOR THE PURPOSE OF PROVIDING LEADERSHIP AND DIRECTION FOR A SERIES OF EDUCATIONAL RESEARCH AND PRACTICE. PARTICIPANTS AND DISCUSSANTS AT THE SYMPOSIUM WERE SCHOLARS IN ANTHROPOLOGY, ECONOMICS, EDUCATION, GOVERNMENT, AND SOCIOLOGY. AUTHORS OF MAJOR PAPERS INCLUDED SOLON KIMBALL, FRED STRODTBECK, ARTHUR ROSS, LEONARD LECHT, HECTOR CORREA, AND GERHARD COLM. PAPERS AND THE DISCUSSION REVEALED HOW THE INCREASING URBANIZATION, SECULARIZATION, AND SPECIALIZATION OF WORK HAVE AFFECTED INDIVIDUAL VALUES IN MASS SOCIETY AND AT THE SAME TIME INCREASED THE IMPORTANCE OF EDUCATION AS A BRIDGE BETWEEN THE PRIVATE WORLD OF FAMILY AND THE MASS SOCIETY OF WORK AND POLITICS. THERE IS A SUMMARY OF DISCUSSION AREAS, INCLUDING--(1) PROBLEMS THAT FACE SCHOOLS WHICH ATTEMPT TO EDUCATE CHILDREN FROM UNSTABLE FAMILY BACKGROUNDS, (2) THE EFFECTS OF TECHNOLOGICAL CHANGE IN THE ECONOMY ON SOCIETY, (3) THE ECONOMIC VALUE OF EDUCATION TO SOCIETY, (4) A HISTORY OF THE GOVERNMENT S COMMITMENT TO INSURE FULL EMPLOYMENT, AND (5) HOW NATIONAL GOALS ARE TRANSLATED INTO DOLLAR COSTS AND MANPOWER REQUIREMENTS. CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS ARE ALSO SUMMARIZED. (JC)

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July 1966

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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The research reported herein was performed pursuant to a proposal with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Phi Delta Kappa

Bloomington, Indiana 47401

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SYMPOSIUM IN OCCUPATIONAL EDUCATION, MANPOWER, AND ECONOMIC CHANGE IN THE UNITED STATES

Introduction

Problem

The educational problems included within this developmental project are extremely broad in scope and almost congenitally resistant to attack except on a broad front. The problems of occupational education, manpower, and economic change require action programs within the educational system, research programs within the entire academic community, and the development of a conceptual framework for the interdisciplinary catalytic functions of program development and the attachment of a sufficiently high level of institutional priority to these problems to insure a highly competitive claim on professional time.

The specific problems under attack in this project are as follows:

1. There is need to focus directly upon the community of educational research and practice and, within this community, to develop an awareness of the problems of occupational education, manpower, and economic growth. Social, economic and cultural factors are presumed to be pivotal in solving problems of unemployment, the maldistribution of affluence, and economic growth. Education and training is the leverage applied to the solution of these problems. Research and development is the prerequisite to defensible educational programs.

   If problems of occupational education and research are to be solved, it is important to win the attention of the community of educational research and practice. This in itself is a major problem. The recent availability of large sums of money for research under various Federal programs (i.e., P.S. 89-10, N.S.F., NIH, etc.) can easily absorb the available supply of competent researchers and it is necessary therefore to undertake programs to develop and sustain the interest of professional workers in the related problems of occupational education, manpower, and economic change.

2. The field of occupational education is undergoing a change in definition as it applies to instructional programs in schools and in its relationships to supporting institutions, professions, and disciplines. The change in definition is necessarily a broadened one. Like the changes that have taken place in the physical and natural sciences, the change began with an element of crisis. In the case of occupational education, it was associated with national efforts to achieve economic growth and the discovery that the attendant problems may be social, psychological, and cultural as well as economic.

   The redefinition of the field of occupational education is a major problem, one requiring the developmental efforts of all agencies and institutions engaged in education and research.

3. The developmental project described in this report deals also with the general problems of strategy and priority in considering questions of education, manpower, economic change, and the relationships among these questions. The issue of the need for a strategy or the requirement of high priority is not to be discussed here. These have been taken as axiomatic or at least assumed to be so by merely recalling the massive legislative programs enacted to stimulate a reorganization and reallocation of resources to stimulate activity in the field.

   The education problem involved here is, first to organize a body of knowledge in the field of education, manpower, and economic change which will command the respect of the most sophisticated leaders of educational research and practice; second, to make this available through educational institutions and agencies which have earned a position of prestige in the academic community; and third, to regard this program as a beginning stage of a process of alerting educational workers to the importance of action programs in this field.

The general problem described here is one of providing leadership and direction for

a series of educational questions of vital concern to educational research and practice. The educational questions are not new but they have renewed importance to national welfare and there are new resources available for attacking the problems. The symposium was a developmental effort which will assist in clarifying the questions, illuminating some choices, and alerting the educational community to the importance of the problems.

Objectives

The objectives of the Symposium as a Developmental Project were as follows:

1. To establish a competent forum for presenting issues and for provoking inquiry on problems of occupational research as these relate to education, manpower, and economic change.
2. To examine the conceptual framework of fields of inquiry which may contribute jointly and simultaneously to research problems involving education, manpower, and economic change.
3. To identify specific problems which are barriers to translating knowledge into behavior in occupational education, in manpower programs, and in educational programs designed to accelerate economic growth.
4. To focus interest on an important educational problem and to invite the attention of educational researchers and educational practitioners to this problem.
5. To prompt research projects and action programs in the various colleges and universities in which Phi Delta Kappa has local chapters.

Method

The project was administered by Phi Delta Kappa, a nonprofit corporation operating exclusively in the field of education. Its legislative authority is the Biennial Council. Its administrative board is constituted through an elected Board of Directors. Executive and professional direction is provided by an Executive Secretary and staff. Major program functions of the organization are developed with the assistance of standing advisory committees or commissions. The advisory body most directly related to this project is the following:

Education, Manpower, and Economic Growth

Dr. William McLure, Chairman, Bureau of Educational Research, University of Illinois

Dr. R. L. Johns, Professor of School Admin., University of Florida

Mr. William Butler, Vice President, The Chase Manhattan Bank, New York

Dr. Eugene McLoone, Specialist in Research, George Washington University

Dr. Kenneth Beasley, Professor of Education, Northern Illinois University

Mr. Leonard Silk, Editor, BUSINESS WEEK, New York

Mr. Kenneth Deitch, Faculty of Economics, Harvard University

Direct administrative responsibility rested with the project initiator, Dr. Maynard Bemis, and complete operational responsibility was delegated to the co-investigators, Dr. Bemis and Dr. McLure. The advisory committee performed an advisory role to both the substantive and operational aspects of the project.

In accordance with the usual policy of the organization, advisory committee members served without pay or honoraria.

The project relied on a symposium and it involved a unique pattern of symposium organization. It was built upon a set of procedures already developed by Phi Delta Kappa as an unusual success mechanism for the accomplishment of similar objectives. The procedures involved the following steps:

1. The acceptance of a general topical emphasis by the legislative body of the organization. The legislative body is the Biennial Council, which

includes 270 delegates representing a membership of about 66,000 active members. (The organizational membership is highly selective. Ninety per cent of the membership hold masters degrees, 29 per cent hold the doctorate, 47 per cent occupy administrative positions and all have important leadership roles.)

2. The symposium topic was accepted as an area of program action in local chapter areas. Action programs are generated at the local level but the symposium documentation is looked upon as a major resource for research and study.

3. The organization selected a competent advisory committee and a general chairman to plan the symposium.

4. The advisory committee developed a detailed plan for the symposium. The six major speakers and the papers they presented were as follows:

   a. American Education in the Future by Solon T. Kimball, Department of Anthropology, Teachers College, Columbia University.

   b. The Attention to Social Detail in an Economically Developed Society by Fred L. Strodtbeck, Director, Social Psychology Laboratory, The University of Chicago.

   c. The Role of Government in Promoting Full Employment by Arthur Ross, Bureau of Labor Statistics, U.S. Department of Labor.

   d. Manpower Needs, National Goals, and Educational Policy in the 1970's by Leonard A. Lecht, Director, National Goals Project, National Planning Association, Washington, D.C.

   e. The Contribution of Education to Economic Development by Hector Correa, Wayne State University.

   f. Dimensions of the Present Era of Technological Change by Gerhard Colm, Chief Economist, National Planning Association, Washington, D.C.

5. The advisory committee selected discussants to join the symposium. The discussants were:

Anne Mayhew Brown, University of Illinois

David S. Bushnell, U.S. Office of Education

William B. Cannon, Bureau of the Budget

Martin David, University of Wisconsin

John Folger, National Academy of Science

John W. Lloyd, Northern Illinois University

Robert E. Taylor, Ohio State University

Jean Flanigan, National Education Association

Vladimer Stoikov, University of Illinois

Walter Daniel, Howard University

Amos J. Snider, University of Missouri

Raymond S. Klein, New York State Department of Labor

Iris Garfield, National Committee for Support of Public Schools

William P. McLure, University of Illinois

Kenneth L. Beasley, Northern Illinois University

Kenneth M. Deitch, Harvard University

Gordon I. Swanson, University of Minnesota

Arthur E. Arnesen, Salt Lake City Public Schools

Maynard Bemis, Phi Delta Kappa

Jules Harcourt, Phi Delta Kappa

6. A planning session was held in November, 1965, in Washington, D.C., involving the speakers, project director, investigator, and advisory committee representatives. This meeting was devoted to the delineation of topics in order to assure adequate integration of the symposium presentation for a valuable publication. The following attended this planning session: Solon T. Kimball, Speaker; Hector Correa, Speaker; Fred L. Strodtbeck, Speaker; Gerhard Colm, Speaker; (Arthur Ross was secured as a speaker after this meeting); Gordon I. Swanson, Kenneth M. Deitch, and Eugene P. McLoone, committee representatives; William McLure, investigator; and Maynard Bemis, project director.

7. The seminar papers were exchanged among participants and made available to discussants well in advance of the symposium. At the time of the symposium, papers were presented and discussions held. The papers were presented to assembled audiences, approximately 50 to 100 people in attendance, and the discussions were open only to co-participants and discussants. The discussion was recorded by a court reporter.
8. The advisory committee met immediately following the symposium and made a preliminary evaluation of the presentations and discussion. The committee appointed Dr. McLure and Dr. Stanley Elam, Editor of Phi Delta Kappa publications, as editors of the publication to result from the symposium. This publication is to consist of the major papers, the discussion, and a summary chapter to be written by John Folger. It will be made available through a commercial publisher; or, if this is not feasible, Phi Delta Kappa guarantees to print and distribute 3000 copies on a cost basis.
9. A formal evaluation session was held in June, 1966. This more detailed evaluation was undertaken by the advisory committee.
10. Concurrently with the development of the symposium the advisory committee was developing The Economics of American Education--A Bibliography. This is an exhaustive bibliography categorized by topical areas covering all material published in English which is devoted to any aspect of education, manpower, and economic change. All members of the Phi Delta Kappa advisory committee on Education, Manpower, and Economic Growth have contributed to the development of this bibliography but the major compilers are Kenneth M. Deitch, Economist, Harvard University, and Eugene P. McLoone, Specialist in Research, George Washington University.

The symposium publication is in the process of being edited at the current time. The bibliography is now being printed. The bibliography will be made available in quantity to Phi Delta Kappa chapter committees studying this problem, to chief

state school officers, to superintendents of schools in urban communities, and to deans and directors of universities and college programs for the preparation of teachers and specialized personnel. The purpose of this distribution is twofold: One, to provide a guide to the study of these related fields, and two, to develop the understanding necessary to a complete evaluation of symposium suggestions for adaptation and adoption by local school and teacher education programs and the societies in governmental units which support them.

Results

The Symposium

The participants and discussants in the symposium were scholars in anthropology, economics, education, government, and sociology. The dialogue presented at the symposium was planned as an initial step to generate ideas for research and practice through interaction of scholars from different fields. The authors of the major papers and the other participants have exemplified two fundamental requirements for such an interchange. One is to present and interpret knowledge gained from different sets of intellectual processes of inquiry as represented in various disciplines. The other is to point out the limits of knowledge.

Solon Kimball presented an anthropological approach to some of the philosophical, pedagogical, and structural areas of change in education. His propositions were provocative but constructive and are supported by evidence which is related to anthropological patterns.

Fred Strodtbeck concentrated on subcultural groups in dealing with certain aspects of learning and adaptation. His investigation revealed the influence or conditioning of environment (education) on the individual. This is a contrast, perhaps suplementary and not contradictory, to Kimball's explanation of some phenomona which have inherited (anthropological) effects.

Arthur M. Ross presented a pragmatic approach to problems of unemployment through full utilization of education and other agencies of society.

Leonard Lecht introduced procedures for estimating manpower demands in the economy. The other side of this problem, mainly estimating school needs to educate individuals with the requisite capabilities, was not planned in the development of this symposium. Another symposium could and perhaps should deal with this topic. (The Phi Delta Kappa Commission on Education, Manpower, and Economic Change is now planning such a symposium.)

Hector Correa defended the assumption on which he has constructed a theoretical analysis of the contribution of education to economic development. In the

discussion which followed his paper he was challenged to admit the existence of alternative assumptions.

Gerhard Colm hailed the trend in planning as an essential, rational process in establishing priorities among functions of government. This process may be called "goals research." It is not a substitute for judgment but a supplement. While Colm's emphasis was on the economics of national goals, he was also concerned with manpower. And manpower consists of human beings, for whom economic considerations are only one important value. This age of change is accompanied by an increased goal-consciousness of the American. Colm thinks long-range planning will become more sophisticated and more widely accepted than at present. Implications for educational planning are only mentioned. These will have to wait for treatment in depth elsewhere.

John K. Folger has summarized the discussions to point up some of the implications and hypothesis for research that came out of these papers in interactions. He has captured some of the thought that may provide an essential link for those who wish to draw upon these materials.

If the discussions provoke members of the academic community and leaders in other fields to consider new strategies and inquiry into many complex and unanswered questions in education, efforts of the symposium would be more than repaid.

The Bibliography

No such complete ~~study tool~~ exists anywhere in the literature today. Its preparation and dissemination are basic to a complete evaluation of the contribution resulting from the symposium in occupational education, manpower, and economic change in the United States. The bibliography will also provide a broader understanding of the total research of the related fields represented by the symposium participants, both those who presented papers and those who served as discussants. The bibliography will be approximately 64 pages in length, bound by saddle-stitching, with an attractive cover. Six thousand copies of this publication are being printed and will be distributed without cost, as indicated in the section on Method.

Conclusions, Implications, and Recommendations

This portion of this final report will consist of a final chapter written for the symposium publication by John K. Folger. In the chapter, Folger does an excellent job of summarizing the symposium and drawing conclusions and implications:

The Phi Delta Kappa Symposium had as its theme "the educational requirements of the next decade in the light of economic, political, technological, and social developments." To develop this broad and ambitious theme, papers were presented by four economists, a cultural anthropologist, and a social psychologist. As might be expected from the backgrounds of the major speakers and other seminar participants, although the discussions ranged over a wide variety of topics, economic changes and their influence on education were given more emphasis than social changes, and political changes were hardly discussed at all.

The task of preparing a summary of the conference discussions was difficult for two reasons. First, I wanted to organize the paper around one or two major ideas or themes. This proved difficult because the six papers and subsequent discussion ranged widely, and while they were related to each other, they lacked a central focus. It was more a seminar of discovery than of conquest; the participants were introduced to a variety of topics, but didn't linger over any part of the terrain. Second, I wanted to discuss the implications of the seminar contributions to educational planning and policy-making rather than simply provide a digest of presentations and discussions. This idea also proved to be difficult because the topic of educational planning itself is very complex and would form an appropriate topic for another seminar.

This paper is best described as a selective summary of the conference proceedings, oriented around two questions: first, what ideas from sociology, anthropology, and economics were presented to the symposium, and what do they tell us about the social forces that will affect education in the next decade? Second, how can these ideas be used by educators and others to plan needed changes in education? As a

result of this approach some of the ideas and insights of the participants are necessarily omitted and others are treated inadequately. Apology is made to the other seminar participants for any violence done their ideas, and the reader is warned to consult the remainder of this volume for the authentic texts.

One set of ideas which has great pertinence for education was presented by Mr. Kimball. He showed how the increasing urbanization, secularization, and specialization of work have affected individual values and culture in American mass society, and at the same time have increased the importance of education as the bridge between the private world of family and the mass society of work and politics.

While schools have become more important as institutions because society depends more on them as <u>the</u> route from family to the world of work, they have remained largely community oriented, locally controlled, and, according to Mr. Kimball, have not changed their organization sufficiently to make them properly responsive to changing conditions in the larger society. The lack of adaptiveness of the organizational structure of the schools can be seen most clearly in our large cities, but it exists in less obvious ways in small towns too. These points are developed in much greater detail in Mr. Kimball's paper and the subsequent discussion.

He goes further to show that the improvement of education as the social institution which prepares people for work and many other aspects of adult life in our complex and rapidly changing society, is not simply a matter of a changed and more flexible organization, but includes fundamental changes in the curriculum and methods of education. Mr. Kimball believes that schools for today's and tomorrow's world must emphasize cognitive development, and that " . . . the important intellectual quality, then, is the capacity to recognize and solve problems, and this is what the thrust of deliberate education ought to be about. Those that argue that this is what the schools now do had better look again." (Pp. 23-24, Kimball's paper).

Mr. Kimball suggested organization of the public schools more on the corporate pattern of the university, which has more flexibility and more adaptability to rapid change than the hierarchical form of organization used by most school systems. At this point the seminar came up to one of the areas where social science may make a substantial contribution to education in the future. A substantial body of new ideas and concepts has been developed about the management of complex organizations. This new field is sometimes called administrative science, but it also includes ideas from organizational sociology and techniques from systems analysis. This research is concerned with the way in which large scale organizations function, how they establish their goals, evaluate progress, and provide for communication. The research emphasizes the systematic relation of one aspect of the organization to others; for example, the progress of curriculum improvement may depend on the type of interpersonal relations that exist between teachers and pupils, which in turn is linked to the patterns of supervisory authority used by principals, superintendents, and the school board. The seminar did not discuss these new social science concepts of organization and management, but made it clear that the traditional community-centered simple organization of the schools is inadequate in our large and medium-sized urban areas, and that the organizational adaptations that school systems have made and are making are often inadequate.

During the next decade nearly all school systems will have to develop new organizational forms to deal with the new programs being thrust upon them by a society that is changing more rapidly and expecting more of the schools. This is manifest most clearly in the increasing number of federal programs which call on the schools for new and different kinds of education, but federal programs are merely symptoms of the general changes in society outlined by Mr. Kimball. Knowledge about new concepts of organization and management can be very useful to the schools as they respond to these pressures for change.

Mr. Strodtbeck's paper dealt with the problems of inadequate social interactions of the dependent members of the lower class. It provided a specific illustration

of the problems that face the schools and other social institutions that attempt to educate children from inadequate family backgrounds so that they can participate effectively in the more specialized and complex urban world. The inadequacies of schools in slum areas have received a great deal of public attention in the last few years. While Mr. Strodtbeck may appear to be dealing with non-school problems when he describes the fragmentation of family kinship ties, the inadequacies of social interaction, and the general sense of threat that pervades the lives of the dependent poor who live in the slums of our large cities, he is describing a set of basic conditions which explain a substantial part of the schools' failures in attempting to educate the children from these backgrounds.

The fragmented, threatened, and impoverished families described by Mr. Strodtbeck present special problems, and most school programs are based on a set of assumptions about pupils which do not fit youth from these families. The seminar discussion was concerned with the ways in which the schools could reach these youth, and in the kinds of adaptiveness the schools need to establish contacts with children, with dropouts, and with their parents. A large number of school-related programs have been launched in the last three or four years to help the urban poor and the culturally deprived. Research has been launched, too, and will provide more guidance in the future design of similar programs.

The seminar did not attempt to discuss the recent research on education of the culturally deprived in detail, nor to suggest specific approaches to new educational programs for these youth. The seminar did make clear what is probably obvious to most readers, that a great deal of the educator's attention in the next decade will be concentrated on the problems of educating those groups who have had least access to, and benefit from, education as it has operated in the past. Social science research will be helpful both in suggesting the necessary conditions for more effective educational programs for the disadvantaged, and in evaluating programs which are established. The research of Mr. Strodtbeck and other social scientists has a great deal of potential value for educators who are going to be

developing programs for the culturally deprived.

Another useful group of ideas was presented by Mr. Colm, who discussed the effects of technological change on the economy and society. He pointed out that economic planning by the government to promote full employment and economic growth is now widely accepted in America. Recent successes in stimulating economic growth by tax cuts and by manipulation of interest rates have led to even greater acceptance of the desirability and necessity of certain kinds of government intervention in economic affairs.

At the same time, economists have become aware of the importance of education to economic growth. Classical economic theory held that land, labor, and capital were the three components of production and would determine the level of economic output. Mr. Correa, who presented a paper on the economic value of education to the seminar, is one of a number of economists who have shown that there has been a great deal of economic growth that cannot be explained by changes in the three basic factors of production. This extra economic growth may be caused by a number of influences including technologically useful discoveries, a higher level of skill and education in the labor force, organizational efficiencies, and other factors. A number of economists have given emphasis to the education of the population as one of the important explanations of this extra economic growth. (For a good review of the new way in which education is viewed by economists, see Mary Jean Bowman, "The Human Investment Revolution in Economic Thought," Sociology of Education, Vol. 39, (Spring 1966), pp. 111-137). The logical extension of the economists' new view of education as a vital factor in economic growth is the inclusion of education as one aspect of economic planning. Governments in the United States have engaged in a limited amount of educational planning in the past, but most of it has been done at the state and local levels and has been concerned more with planning for more pupils, rather than being concerned with the kind of education needed to achieve greater economic growth. In recent years, and primarily at the federal level, educational planning has been more oriented around economic and social problems.

Mr. Ross' discussion of the history of the government's commitment to insure a full employment economy provides a good example of the new view of the government's role in the economy. It also shows how educational programs have become part of the government's efforts to decrease unemployment. Most of the recent debate about the government's role in promoting employment has not been concerned with whether or not the government had a role in promoting full employment, but with what the government should do.

Mr. Ross describes the two main views about the way to deal with problems of unemployment: The structuralist viewpoint and advocates of aggregate demand. The structuralists concentrate attention on making the labor market operate more effectively by improving information services, job retraining programs, education in basic skills for the under-employed, and similar approaches. The aggregate demand theorists believe that the major way to prevent unemployment is to increase the level of economic activity. In times of war, unemployment drops to very low levels, and even people with marginal skills enter the labor market. Therefore, the government ought to promote a high level of employment by controlling taxes, interest rates, and even by allowing a small amount of inflation, which may be necessary to keep the economy moving.

Mr. Ross pointed out that these two strategies were not inconsistent and that the government had actually supported worker-training programs, job market information services, and other activities designed to make the labor market function better, and at the same time had decreased taxes, made capital investment more attractive, and used fiscal and tax policy to stimulate the economy.

Even when unemployment drops below 4 percent, as at present, there are important groups in the population that have much higher rates of unemployment. Negroes, teenagers, and persons with little formal education are examples of groups with high rates of unemployment. Mr. Ross pointed out that many other countries did not have the teenage unemployment problem that exists in the United States. The discontinuity between school and work in this country probably reflects the

primary orientation of our secondary schools to college preparation. For the student not headed for an academic collegiate program, the schools do much less than they could to relate school to work. Combination work and study programs which have had a limited development in secondary schools and colleges of the United States may offer a much better way of smoothing the transition from school to work, and reducing teenage unemployment and delinquency.

As the federal government increases its contribution to and concern with education, the problems of planning and coordination among the various sources of support for education will become more complex. As education is more often viewed as a "solution" to economic and social problems like delinquency and teenage unemployment, the public and legislators may expect results at a more rapid rate than education can respond. A bigger investment in more sophisticated planning, and a bigger investment in educational research will both be needed if our educational institutions are to deliver on the new expectations that are being generated by economic and social planning.

The main emphasis of Mr. Colm's seminar presentation was on the effects of technological change on the economy, and technology's effect on the changing requirements for educated workers. Although he sees the impact of technology as evolutionary rather than revolutionary, over the next twenty years the changes in the economy will increase the size of the occupations requiring advanced levels of education, and at the same time will result in smaller requirements for persons who have less than a high school degree. Since these changes in educational requirements are continuations of trends that have existed for some time, it is reasonable to believe that economic projections indicating future levels of employment and economic costs could be developed on the basis of past trends in the economy and society. Mr. Colm's colleague, Mr. Lecht, has been preparing a set of economic and manpower projections which, in addition to taking account of past trends, relate projections of the future economy to national goals. These goals, in education, transportation, slum clearance, and about a dozen other areas of national life, were recommended by a committee

of distinguished citizens appointed by President Eisenhower.

Mr. Lecht has been translating these goals into dollar costs, and then into manpower requirements. His study provides a very comprehensive and general estimate of what will be needed by educational institutions in the way of dollars and personnel in the next decade, and even more important, what society is likely to request by way of educated manpower from the schools and colleges of the nation.

The estimated costs of achieving the national goals seem likely to be 10-15 per cent more than the economic growth that can be anticipated by a full employment economy by 1975. Therefore, some choices will have to be made about which goals to emphasize. Even if the economy would permit achievement of all the goals, there might be manpower shortages which would prevent the achievement of some of the goals. For example, the number of doctors who will be trained between now and 1975 will probably be inadequate to meet the health goals, regardless of the number of dollars expended. A big increase in higher education will be required to meet the manpower requirements of these national goals. The number of graduates needed to achieve the goals implies a college enrollment of 9½ million by 1975, which is about 800,000 higher than the most recent projections of the Office of Education, and about 400,000 more than the highest projections of the Census Bureau. If enrollment falls below the 9½ million level, the output of graduates probably will be inadequate to achieve all the goals by 1975. Shortages of educated manpower will also require some choice among goals, although Mr. Lecht's figures suggest that the educational system will come closer to providing the educated manpower to achieve the goals than the economy will come to providing the necessary dollars, although for some goals (health, for example) manpower shortages may be the principal limitation to achieving the goal.

The type of study being made by Mr. Lecht provides a very broad and general indication of educational requirements that arise from the needs of the economy. As is the case with projections of this type, they are potential needs which may or may

not be translated into actual demand for graduates in future years. As the occupational needs for a full employment economy in the future are projected in greater detail, they will provide a range of demand estimates which should provide valuable information needed to plan the expansion of education so that the needed number of each kind of graduate will be available.

The analysis of the economy made by Mr. Lecht indicates the general need for educated persons as the economy evolves. This provides valuable background information for educators. Much greater specificity than was possible in a study of this type is needed to guide the planning of individual schools and colleges. Which types of educational expansion should have the greatest priority? Are there likely to be surpluses in some fields even though there are shortages in others? Can anticipated national needs and supplies be used by local groups to plan institutional expansion? How can educators best deal with the margin of uncertainty in all projections? These are some of the questions which must be answered as educators try to decide how they can use the results of studies like the interesting and important work of Mr. Lecht and the National Planning Association.

Mr. Lecht's paper was not the only one that dealt with national problems and trends and implicitly raised questions about the relation of this information to local schools. All of the seminar presentations except Mr. Strodtbeck's focused on general trends and problems which may seem remote from local school problems and issues. How will concerted local action be generated in hundreds of separate communities to deal with national problems? Should there be more national educational policies to guide local action, or will our historic dependence on local policies without federal initiative be adequate to deal with these complex national economic and social problems? While the seminar did not try to resolve the questions of the need for a more central federal role in formulating national educational policies, it is a question that arises when you begin to think about the way in which education can contribute to problems of economic growth, full employment and achievement of national goals.

In the economic sphere there is an analogy. There are thousands of private corporations and businesses responsible for their own affairs, but regulated in some ways by the government, and influenced by the government's fiscal and tax policies. As several of the seminar participants indicated, we have a more active federal role in formulating policies to assure full employment and economic growth. While these policies limit the freedom of private companies in some ways, if successful they will create the kind of economic growth which will make private enterprise flourish.

Although the situation is changing, national policies in education are less developed than national economic policies. It seems unlikely that thousands of local school systems can act together in the absence of federal policies to deal with problems of economic growth, teenage unemployment, and other problems where an educational contribution is needed. It is virtually certain that more national educational policies will be developed to assure that education makes a contribution to economic and social problems. In their absence, local action is likely to be fragmentary, and often ineffectual. The consequences of Americans' strong belief in the power of education to solve national problems, and the continuing concern with economic and social issues, makes it virtually certain that the federal government will develop more national educational policies.

What form will federal educational policies take? Will they stimulate local initiative and local planning to deal with educational issues? Or, will the initiative for implementing policies be retained at the federal level with local schools and colleges responding to federal initiative? There is a strong and widespread belief in the value of local initiative in education, and it seems likely that the implementation of federal policies will place heavy reliance on local initiative as long as that approach works. In situations where it doesn't work, the federal government is likely to assume more of the responsibility for policy implementation. School desegregation is an example. When local initiative produced little progress in desegregation, the federal government assumed a more active role.

It seems likely that this pattern will be repeated in the future; if schools don't develop more effective programs for the culturally deprived children on their own initiative, they will find that the federal government may turn to industry and other groups for help, and may develop more specific program requirements to assure that the funds distributed to local schools are used effectively.

In a recent speech, Lyle Spencer, president of Science Research Associates, remarked: "I have observed that new approaches to education for a changing world do not come easily to the mammoth establishment of our middle-class-dominated educational world. The pressure for change usually comes from somewhere out in left field, and the location of left field keeps changing. Right now left field is the war on poverty. The so-called culturally deprived child sits in the eye of a hurricane that is shaking the foundations of education." (Reprinted in the American Council on Education Newsletter Higher Education and National Affairs, XV, No. 24, July 21, 1966).

The key to the kind of national programs that are developed probably depends to a large degree on the adaptiveness of local schools and their readiness to accept the initiative in planning and developing new programs to implement national policy objectives. For most school systems this will mean a greater sensitivity to social and economic issues than they have had in the past, and a greater capacity for self-examination and self-improvement.

The improvement of the quality of education is likely to emerge as one of the key issues in maximizing the contribution of education to economic growth. The argument is that for maximum economic growth, we must have maximum development of our human resources, and the schools must improve their programs to bring this about. National policies to promote improved quality of education are likely to become a key issue in the next decade. Difficult questions like What are valid measures of educational quality? and Who should assess quality? and What should be done about low quality schools? are sure to arise, and resolution of them is likely to strain the relationships between federal government and local communities.

The seminar participants did not discuss these implications of social and economic

changes for schools in detail, but they touched on these issues a number of times. The future evolution of federal-local relations in education is a complex matter which cannot be predicted very accurately, but these relations will have a great deal to do with shaping the future impact of social and economic changes on the schools.

Only a few of the social and economic changes described in the seminar papers and discussion have been included in this summary. The seminar presentations underline the fact that change in the society will have a major influence on the future of education in the United States. One way that educators can prepare to deal with these influences is to inform themselves about current trends and problems, and, hopefully, this volume will make some contribution to this increased understanding.

A general knowledge and awareness of socio-economic problems and issues is important, but it is not enough. It is quite clear that the pace of change in society is so rapid that educational institutions, school systems, and state and regional educational agencies must be prepared to respond more rapidly, and must use a much wider range of information in their program planning than ever before.

Economic planning is based on an elaborate set of statistical indicators, and while the seminar papers did not get into technical aspects of input-output analysis, or of the system of national economic accounts, there is a technical information base essential for the success of the government's economic planning and its intervention in economic affairs.

As compared with the value of economic statistics for economic planning, the educational statistics and information now available provide a much less detailed and useful information base for educational planning. Educators have also made much less progress than businessmen or economists in application of the information they do have to planning and management of schools and colleges.

It is not a question of whether education is going to be run as a business or not; education is not a business and one of the major differences is that the teaching

and learning process is more complex than the processes that most businesses have to deal with. The real issue is whether educators can develop and adopt new planning and management systems that are adequate for the complex tasks that face education.

At the present time most colleges and school systems are not well organized to apply new ideas and concepts from educational research, economic research, or social psychological research. Concern about the slow rate at which new ideas are adopted in education has been expressed by the federal government, which is providing funds to establish a network of regional educational laboratories. One of the main functions of the laboratories will be the dissemination of new educational ideas and provision of support for their introduction into education. It is too early to tell how well these new organizations will work, but if they are to be of maximum utility, changes will be required in the way that many school systems plan and operate.

For example, the development of a successful new work study program to reduce teenage unemployment, and get at one of the underlying causes of delinquency, presents a big challenge to the planning capabilities of many school systems. Even though there are successful models of such programs in some parts of the country, the application of the idea may be difficult in the local setting. The school system may lack adequate information on the kinds of work programs that will fit the local and regional job market, and they may not understand the kinds of resistances that students and teachers may have to this kind of innovation. How do you motivate the students who need such a program to enter it? Which teachers will be most effective with this type program? How much will it cost, and are there substantial hidden costs? Complex management decisions are necessary, and even where findings from previous research and facts about various aspects of the new program are available (and they often are missing) they may not be used very effectively. In general, educational institutions are undermanaged and underplanned, and until some change in this basic condition occurs, regional laboratories or other new types of organization are not likely to have their maximum impact.

The seminar presentations make it very clear that social change in America is accelerating and that the schools have an important part in maintaining a strong economy and in helping to deal with a wide variety of social problems. Ideas and concepts from the social sciences will be increasingly important for educators in tomorrow's schools, and the effective administrator must understand some economics, sociology, political science, anthropology, and psychology, as well as educational philosophy, curriculum development, and the politics of his school board members. It will not be enough for the educational administrator to have a general knowledge of the social sciences; he must be a part of a planning and management process that is prepared to apply both ideas and complex techniques from the social sciences to practical problems.

Many educators would prefer the good old days when educational problems were simple, localized, and could be solved by face to face conversations among a few people. But the seminar papers illustrate the complexities of the modern world and the need for new methods of educational planning. Some educators will feel that new management procedures threaten their independence and visualize the computer replacing the principal or superintendent. These new approaches when properly used will increase the educational administrator's scope of action and control over educational processes. In their absence, the educational administrator may soon find that he is like the farmer without a tractor; he's still in control of his mule, but he may have lost control of his farm.

Recommendations

It is the recommendation of the project director that a series of follow-up symposia be held in order to build knowledge upon the base provided by the first attempts to examine the interrelationships among occupational education, manpower, and economic change in the United States. Specifically, it is recommended that the next symposium deal with educational planning and that it be held in the Fall of 1967.

A proposal for the recommended symposium will be prepared and submitted to the U.S. Office within the next nine months.

Summary

Problem

The specific problems under attack in this project are as follows:

1. There is need to focus directly upon the community of educational research and practice and, within this community, to develop an awareness of the problems of occupational education, manpower, and economic growth.
2. There is need to redefine the field of occupational education. This change in definition is necessarily a broadened one.
3. There is need to deal with the general problems of strategy and priority in considering questions of education, manpower, economic change and the relationships among these questions.

Objectives

The objectives of the symposium as a developmental project were as follows:

1. To establish a competent forum for presenting issues and for provoking inquiry on problems of occupational research as these relate to education, manpower, and economic change.
2. To examine the conceptual framework of fields of inquiry which may contribute jointly and simultaneously to research problems involving education, manpower, and economic change.
3. To identify specific problems which are barriers to translating knowledge into behavior in occupational education and manpower programs and in educational programs designed to accelerate economic growth.
4. To focus interest on an important educational problem and to invite the attention of educational researchers and educational practitioners to this problem.
5. To prompt research projects and action programs in the various colleges and universities and metropolitan areas in which Phi Delta Kappa has local chapters.

Method

The project relied on a symposium and it involved a unique pattern of symposium organization. It was built upon a set of procedures already developed by Phi Delta Kappa as an unusual success mechanism for the accomplishment of similar objectives. In brief, the pattern involved the following steps: The acceptance of a general topical emphasis by the legislative body of the organization; the symposium topic was accepted as an area of program action of local chapters; the selection of a competent advisory committee and general chairman; the development by the advisory committee of a detailed plan for the symposium; the selection of participants and discussants; a planning session for speakers to assure adequate integration of the symposium presentation; the exchange of seminar papers among the participants and discussants; the holding of the symposium; evaluation.

Results

The participants and the discussants in the symposium were scholars in anthropology, economics, education, government, and sociology. The authors of the major papers and other participants exemplify two fundamental requirements for the successful interchange of ideas. One is to present and interpret knowledge gained from different sets of intellectual processes of inquiry as represented in various disciplines. The other is to point out limits of knowledge. It is felt that the discussions will provoke members of the academic community and leaders in other fields to consider new strategies and inquiry into many complex and unanswered questions related to occupational education, manpower, and economic change in the United States.

Concurrent to the preparation for the symposium, the advisory committee was preparing The Economics of American Education--A Bibliography. No such complete study tool exists anywhere in the literature today. The bibliography will provide a broader understanding of the total research of the related fields under consideration. It is approximately 64 pages in length and will be widely distributed, without cost, to appropriate educators.

Conclusions, Implications, and Recommendations

This section of the report is best described as a selective summary of the conference proceedings oriented around two questions: First, what ideas from sociology, anthropology, and economics were presented to the symposium and what did they tell us about the social forces that will effect education in the next decade? Second, how can these ideas be used by educators and others to plan needed changes in education?

One set of ideas which has great pertinence for education was presented by Mr. Solon Kimball. He showed how the increasing urbanization, secularization, and specialization of work have effected individual values in culture in American mass society and at the same time having increased the importance in education as a bridge between the private world of family and the mass society of work and politics. He goes further to show that fundamental changes in the curriculum and methods of education must be made, if the educational institution, as a social institution, is to prepare people for work in many other aspects of adult life in our complex and rapidly changing society. Mr. Kimball suggested organization of the public schools more on the corporate pattern of the university which has more flexibility and more adaptability to rapid change than to the hierarchical form of organization used by most school systems.

Mr. Fred Strodtbeck's paper dealt with the problems of inadequate social interactions of the dependent members of the lower class. It provided a specific illustration of the problems that face the schools and other social institutions that attempt to educate children from inadequate family backgrounds so that they can participate effectively in a more specialized and complex urban world. The inadequacies of schools in slum areas have received a great deal of public attention in the last two years. While Mr. Strodtbeck may appear to be dealing with non-school problems when he describes the fragmentation of family kinship ties, the inadequacies of social interaction, and the general sense of threat that pervades the lives of the dependent poor who live in the slums in large cities, he is describing a set of basic conditions which explain a substantial part of the school's failure in

attempting to educate the children from these backgrounds. The seminar discussion was concerned with the ways in which the schools could reach these youth and in the kinds of adaptiveness the schools need to establish contacts with children, with dropouts, and with their parents. The research of Mr. Strodtbeck and other social scientists has a great deal potential value for educators who are going to be developing programs for the culturally deprived.

Another useful group of ideas were presented by Mr. Colm who discussed the effects of technological change of the economy of society. He pointed out that economic planning by the government to promote full employment in economic growth is now widely accepted in America. At the same time, economists have become aware of the importance of education to economic growth.

Mr. Hector Correa presented a paper to the seminar on the economic value of education. He is one of a number of economists who have shown that there has been a great deal of economic growth that cannot be explained by changes in the three basic factors of production--land, labor, and capital. This extra economic growth may be caused by a number of influences including technological useful discoveries, a higher level of skilled education in labor force, organizational efficiency, and other factors.

Mr. Arthur Ross' discussion of the history of the government's commitment to insure a full employment of economy provides a good example of the new view of the government's role in the economy. It also shows how educational programs have become a part of the government's efforts to decrease unemployment. As the federal government increases its contribution to and concern with education, the problems of planning and coordination among the various sources of support for education will become more complex. As education is more often viewed as a solution to economic and social problems like delinquency in teenage unemployment, the public and legislators may expect results at a more rapid rate than education can respond. A bigger investment and more sophisticated planning and a bigger investment in educational research will both be needed if our educational institutions are to deliver on the new expectations that are being generated by economic and social planning.

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The main emphasis of Mr. Gerhard Colm's seminar presentation was on the effects of technological change on the economy and technology's effect on the requirements for educated workers. Although he sees the impact of technology as evolutionary rather than revolutionary over the next 20 years, the changes in the economy will increase the size of the occupations requiring advance levels of education and at the same time will result in smaller requirements for persons who have less than a high school degree. Since these changes in educational requirements are continuations of trends that have existed for some time, it is reasonable to believe that economic projections indicating future levels on employment and economic costs could be developed on the basis of past trends in the economy and society.

Mr. Colm's colleague, Mr. Leonard Lecht, has been preparing a set of economic and manpower projections which in addition to taking account of past trends relate projections of the future economy to national goals. These goals in education, transportation, slum clearance, and about a dozen other areas in national life are recommended by a committee of distinguished citizens appointed by President Eisenhower. Mr. Lecht has been translating these goals into dollar costs and then into manpower requirements. His study provides a very comprehensive and general estimate of what will be needed by educational institutions in the ways of dollars and personnel in the next decade, and even more important, what society is likely to request by way of educated manpower from schools and colleges of the nation. As is the case with projections of this type, there are potential needs which may or may not be translated into actual demand for graduates in future years. As occupational needs for a full employment economy in the future are projected in greater detail, they will provide a range of demand estimates which should provide valuable information to plan the expansion of education so that the needed number of each kind of graduate will be available. Most of the papers dealt with national problems and trends and implicitly raised questions about the relation of this information to local schools. How will concerted local action be generated in hundreds of

separate communities to deal with national problems? Should there be more national educational policies to guide local action, or will our historic dependence on local policies without federal initiative be adequate to deal with these complex national, economic, and social problems? While the seminar did not try to resolve the questions of the need for more central federal role in formulating national educational policies, it is a question that arises when you begin to think about the way in which education can contribute to problems of economic growth for employment and achievement of national goals. Although the situation is changing, national policies in education are less developed than national economic policies. What form will federal educational policies take? Will they stimulate local initiative in local planning to deal with educational issues? Or, will the initiative for implementing policies be retained at the federal level with local schools and colleges responding to federal initiative?

The seminar papers illustrate the complexities of the modern world in a need for new methods of educational planning. Some educators will feel that new management procedures threaten their independence and visualize the computer replacing the principal or superintendent. These new approaches when properly used will increase the educational administrator's scope of action in control of educational processes. In their absence the educational administrator may soon find that he is like the farmer without a tractor--he is still in control of his mule but he may have lost control of his farm.

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